

The thesis deals with Gauss and Clenshaw-Curtis quadrature from both theoretical and numerical perspectives. First, the general theory of orthogonal polynomials is summarized. Then, specific examples (Legendre and Chebyshev polynomials) are presented. The second part of the thesis shows algorithms for calculating the nodes and weights of the studied quadratures. Subsequently, the issue of convergence of the quadratures with an increasing number of nodes is addressed. The final part of the thesis focuses on numerical experiments that verify the theoretical results and compare both quadratures. The software Matlab and the Chebfun toolbox are used.